Section 1 - General Information and Project Complexity

1. Name of submitting organization: Naval Inventory Control Point, Philadelphia, PA

2. Organization Unit Responding: Transportation and Advanced Traceability and Control (ATAC) Program Management Division, NAVICP 0344

3. Mission: The mission of the Naval Inventory Control Point (NAVICP) is to provide program and supply support for the weapons systems that keep our Naval forces mission ready. This mission is carried out by a single command organization operating as a tenant activity of the Naval Support Activities in Mechanicsburg and Philadelphia. NAVICP's goal is to provide customers with quality products for best value in a timely manner. The Philadelphia site primarily focuses on aviation and weapon system support. Support for hull, electrical, mechanical, and electronic components and repair parts for ships, submarines, and weapon systems are among the duties performed by the Mechanicsburg personnel.

4. Award category: Operations

5. Supply chain description: This submission describes capabilities developed as part of NAVICP's Retrograde Reengineering effort to improve the Returns segment of the Naval supply chain.

6. External supply chain partner organizations involved: Naval fleet and field activities (many supply corps personnel at operating sites), Fleet Industrial Support Centers (2 Supply Corps personnel and 2 civilian supply-related personnel), Naval Type Commanders (6 Supply Corps military personnel), Marine Corps logistics headquarters (2 Supply Corps military personnel)

7. Internal functional organizations involved: 5 Naval Inventory Control Point (NAVICP) Transportation and ATAC Program Management representatives, 1 Navy Supply Information Systems Activity (NAVSISA) Supply Systems programmer, and various NAVICP repairables management personnel.

8. POC for each supply chain partner:
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Section 2: Implementation

1. During Operation Desert Storm and Desert Shield, there were a number of lessons learned that highlighted the need for improvements in the Naval supply chain as it relates to the return of high cost assets from worldwide operating sites to U.S. repair sites. Among those lessons was the need for improved asset loss prevention and accountability throughout the return process, improved shipping documentation, and the need for rapid turn-in credit to be provided at a location as close to the operating site as possible.

With expectations of an escalating operating tempo in the Persian Gulf, the *ATAC System Team* successfully developed a comprehensive web-based repairables returns management system. This system was developed as a result of a joint recognition between programming, supply systems, transportation and program management personnel of the need for rapid improvement to accommodate the expected op-tempo. The Team applied superior technical acumen and coordination across several commands and rapidly implemented major improvements for a business that entails the movement of 400,000 return units worldwide worth $10 billion. Their forward thinking approach and expert ability to develop fleet-buy in for pilot development, implementation and resourcing qualify as outstanding accomplishment for their team.

2. This project is ongoing in nature. It has been successfully tested and implemented at numerous afloat and ashore Naval activities, but is currently being enhanced to include additional capabilities meant to further improve the returns process.

3. The Naval Inventory Control Point *ATAC System Team* has designed an information technology system and returns process that have reengineered Navy retrograde management processes to realize substantial cost savings and efficiency gains.

eRMS - The "Electronic Retrograde Management System", eRMS, was rapidly developed to meet the demand for reduced material identification errors, improved accuracy and timeliness in the routing and return of repairable carcasses, and increased in-transit visibility necessitated by Operation Iraqi Freedom. It is the redesign and improvement of numerous disparate systems that provides users worldwide with unprecedented capabilities that were previously limited to a few centralized "ATAC" logistics centers. It allows users to accurately identify carcasses, obtain correct depot mailing addresses automatically, prepare digital and bar coded versions of correct shipping labels (including serial number tracking) and allows tracking capability when items have been shipped. The eRMS design provides rapid turn-in credit and virtually eliminates "carcass tracking" by the fleet user (a direct reduction in workload afloat), and provides the shore infrastructure with instant visibility that a carcass is en-route. Continuous improvement in response to the needs of personnel at the fleet user, NAVICP and Type Commander (TYCOM) level has resulted in eRMS becoming the backbone of the Naval worldwide returns process.

Mobile Nodes - Concurrently, the team developed procedures, in coordination with Naval Reserves, contractor, Navy/Marine Headquarters and squadrons in-the-field, to provide manpower and equipment needed to manage rapidly deploying retrograde (returns) processing sites. These "mobile nodes" were subsequently established during Operation Iraqi Freedom (OIF), and will support future operations where substantial increases in the volume of material returns for repair is expected. These nodes effectively eliminated backlogs of retrograde assets in-theater, enabling them to be returned expeditiously to the U.S.

In-Transit Visibility (ITV) - OIF highlighted the need to focus on improving the ITV of shipments while transported between ship and shore. Teaming with Military Sealift Command, NAVICP is piloting the use of eRMS onboard cargo ships delivering material to and receiving returns from ships afloat. Until now, this segment of the pipeline has been a "black hole" in Navy ITV. Similarly, the team laid the groundwork for a Performance Based Agreement with USTRANSCOM to help improve end-to-end visibility of aircraft engines in those segments of the pipeline which the Navy does not control.

Naval Logistics Integration - They are also active participants in the Naval Logistics Integration effort. The goal is to integrate disparate logistics systems/processes between Marine Corps and Navy in favor of a single process that works for both organizations. They are currently focusing on using Navy's returns system for processing of Ground Marines' retrograde shipments, whether deployed or at their home station. This initiative is expected to improve accountability and process time for Ground Marines' return shipments to the repair site.

4. Challenges encountered by the *ATAC System Team* included coordinating among diverse organizations worldwide. At a time of increasing responsibilities and decreasing resources, the team greatly expanded the scope of retrograde management while streamlining the complex process and decreasing operating costs. The team effectively managed this wide-sweeping process change, radically reengineering established returns procedures and redefining roles and responsibilities across various commands. The team tackled programming and implementation requirements to enable simplified yet more accurate processing of returns during and after OIF. By incorporating and expanding on the best features of five complex legacy retrograde information technology systems, a more effective single integrated data system resulted, at greatly reduced annual Information Technology (IT) expense.

Capabilities built into eRMS allowed mobile turn-in sites to utilize commercial transportation best practices, enabling rapid direct shipment from user to repair site.

5. Metrics:

Cost - Development of eRMS has helped to lower IT costs associated with the returns management process.

In-transit Visibility - eRMS provides the capability to track shipments from turn-in site to ultimate repair or storage destination. It provides automated feeds to NAVICP data systems that have greatly improved our ability to account for repairable assets (see Figure 1). In addition, its ability to generate standardized shipping documentation at all user sites enables rapid incorporation of changes (such as serial number tracking, Unique Item Identification, 2-Dimensional bar coding) that will enable further improvements to asset visibility. In the future, eRMS will be utilized to report the status of material on-hand or in the repair process at companies that do not currently have this capability, providing increased asset visibility to NAVICP inventory managers.

Reduction in Routing Time to Repair Facilities - By eliminating the need for identification and routing at ATAC hubs and nodes, hubs and node processing times have been significantly reduced from an average of four days to one day. Additionally, work-in-process queues and storage requirements at those sites have been reduced, as the only handling requirement is transshipment of the Navy assets. Of particular note, while we experienced a 100% increase in Fifth Fleet retrograde volume during Operation Iraqi Freedom, eRMS actually decreased the transit time of assets to repair facilities from 25 days to 17 days. eRMS's ability to identify critical items combined with its direct shipment capability eliminated multiple touch-points in the Fifth Fleet during OIF (see Figure 2).

Other benefits:

Early Identification - eRMS provides the fleet user direct capability to properly identify material and prepare carcass return documents for direct routing to repair facilities. By accessing the live NAVICP database, eRMS enables the user to properly identify retrograde by part number and National Stock Number (NSN). It readily identifies carcass express material, hazardous material requiring further certification, items requiring Scheduled Removal Cards and repair history, and classified material. It compares 'turn-in' NSN to the NSN requisitioned or issued and identifies suitable substitutes. eRMS also requires the user to post proof of shipment and identify intermediate carriers. This function provides unprecedented in-transit visibility for Navy/Marine Corps retrograde. Upon completion of the identification process, eRMS provides a transaction item report on the shipment to NAVICP. Visibility of this data allows NAVICP to turn off fleet carcass tracking inquiries, virtually eliminating this administrative burden on the warfighter.

Standardized Shipping Documentation - ERMS produces standardized turn-in documentation, shipping labels and manifests. During the entire process, TYCOMs, NAVICP, and shipboard personnel can access the system and retrieve information on any piece of retrograde. For shore establishments turning in critical "Carcass Express" material, eRMS can be utilized to affect rapid direct shipments to a repair facility. For routine shipments, eRMS make it easy to prepare documentation for consolidation of shipment units, to reduce per-item shipping charges. By providing a standard return shipment process, eRMS reduces variability in the returns process.

Backbone of Retrograde Pipeline for Operation Iraqi Freedom – eRMS was expanded from a proof of concept at (2) afloat activities to (9) additional activities in January 2003 due to possible contingencies in the Arabian Gulf. eRMS was providing Type Commander staffs' unprecedented visibility and

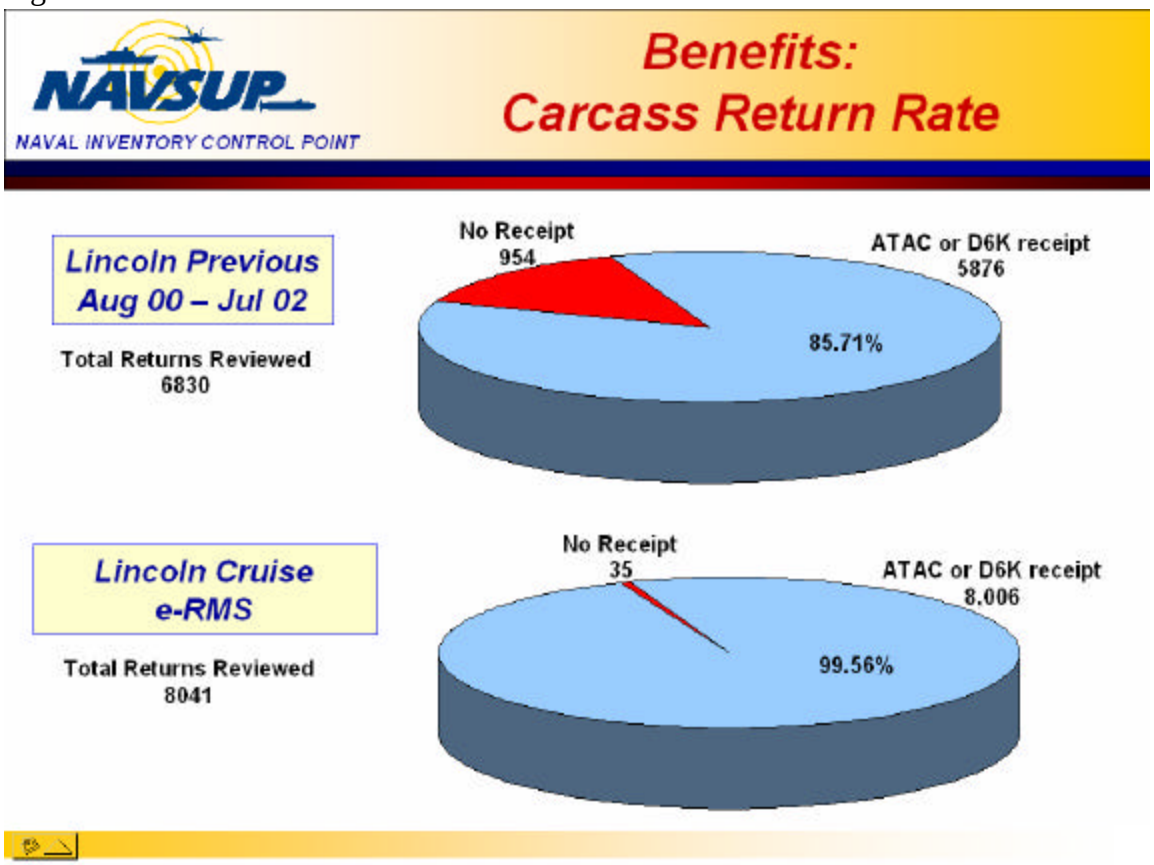
subsequent workload reduction which compelled them to strongly recommend it being placed on aircraft carriers heading into harm's way. Upon evaluation and lessons learned from Operation Desert Storm, NAVICP made the decision to implement (2) mobile nodes in Fujairah and Kuwait City to offset backlogs of retrograde in Bahrain that would reduce the number of system losses and ultimately increase readiness. Both "mobile nodes" were established in March 2003 and outfitted with eRMS, enabling the Navy/Marine Corps Team to properly identify retrograde using live UICP database files, Transaction Item Report it to supply systems, and quickly ship the retrograde to the proper repair facility, utilizing commercial air for direct shipment for readiness degraders.

6. Cost and Performance Benefits:

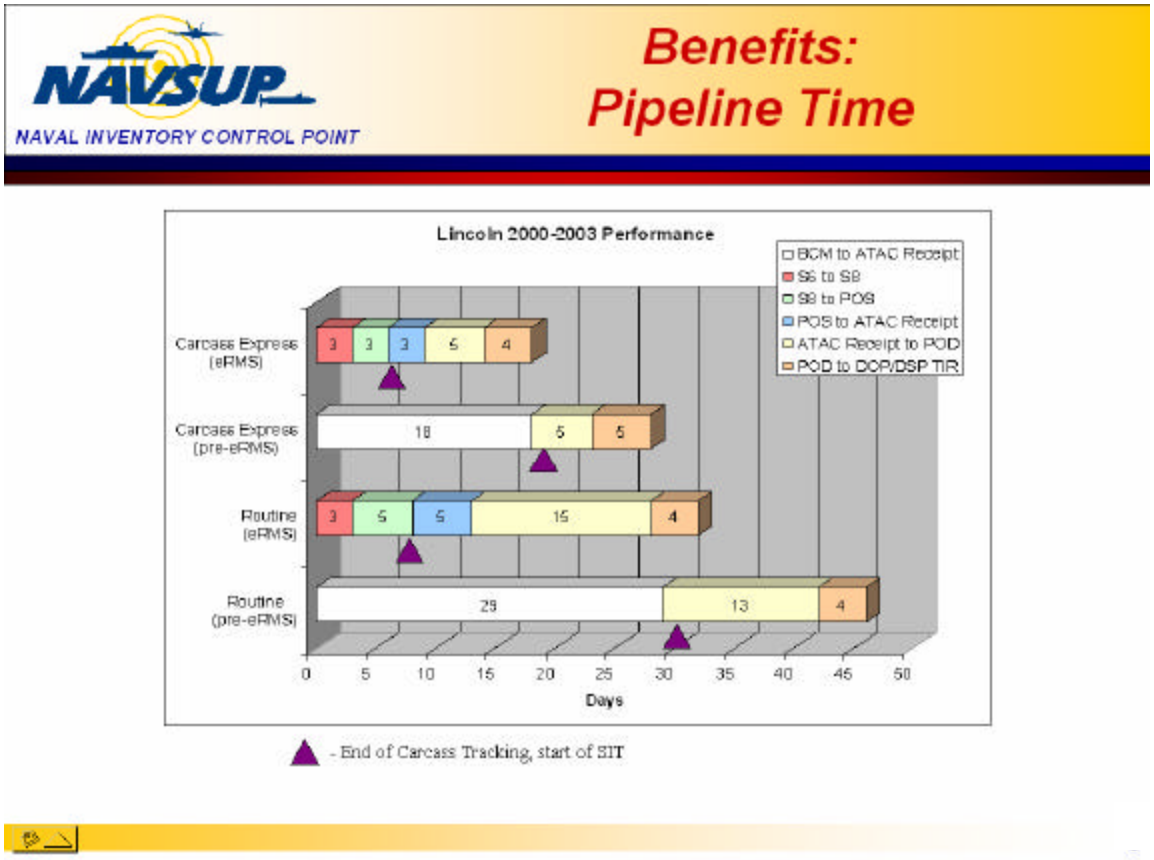
Returns Processing Costs - By incorporating and expanding on the best features of 5 legacy "returns" IT systems, the resulting single eRMS data system resulted, enabling the FY04 Retrograde IT budget of $1.2M to be reduced to an FY05 budget of $300k, a projected cost avoidance of $900k annually, while providing greatly expanded capabilities compared to the five legacy systems.

Delivery Performance / In-Transit Visibility - The effectiveness of in-transit visibility can be measured by the percentage of carcass returns for which NAVICP is able to ascertain positive proof of delivery (ATAC or destination [D6K] receipt). The following chart (Figure 1) compares the percentage of receipts at destination of the USS Lincoln prior to and subsequent to implementation of eRMS aboard ship. Fleet return rate was increased from 85.71 % to 99.56%.

Figure 1.



Performance: Reduction in Routing Time to Repair Facilities - Due to improvements incorporated in the returns process by the ATAC System Team, major improvements were quantified in the areas of Supply Chain Delivery Reliability and Delivery Performance. Pipeline return time for critical ("Carcass Express") repairables was reduced by 10 days; routine shipment time was reduced by 18 days.



7. The success of this retrograde reengineering effort directly supports the Naval Inventory Control Point (NAVICP) objective of providing supply support for the weapons systems that keep our Naval forces mission ready. By providing a cost-effective way of accounting for Naval weapon systems in the returns process (preventing losses), and protecting those assets to prevent added damage en-route to the repair site, repair costs are minimized, and need for new acquisition is prevented. As a result, the cost-per-item paid by Naval forces is minimized. This supports NAVICP's goal of providing customers with quality products for best value in a timely manner.

Section 3: Knowledge Transfer

1. NAVICP works with Navy/Marine headquarters as well as inventory and logistics managers throughout the organization to share the lessons of the retrograde reengineering effort. This has resulted in continuous improvement of the returns process, as other functional areas gain insight into the process and provide recommendations of improvements that would be beneficial to their area of responsibility.

2. Through the Naval Logistics Integration effort, this initiative is currently being incorporated by the Marine Corps to improve their returns process. It is potentially transferrable to Air Force and Army as well.